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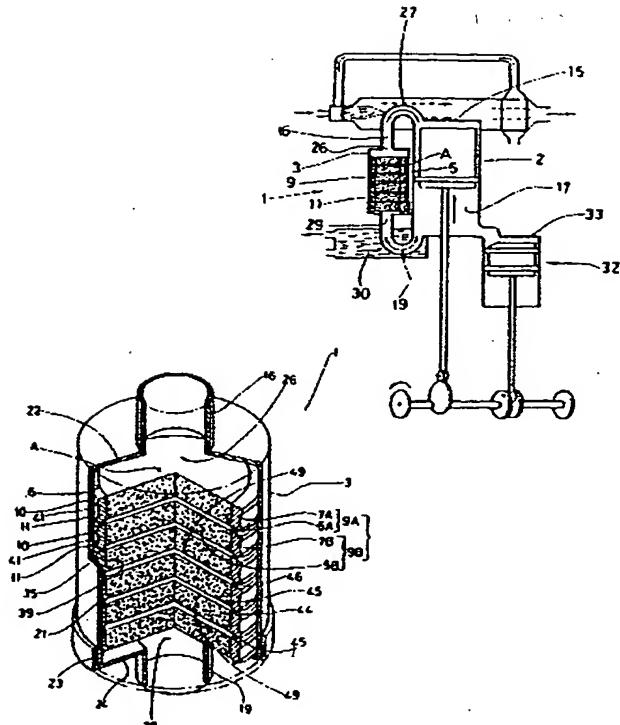
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TITLE : HEAT REGENERATOR FOR STIRLING ENGINE



ABSTRACT : PURPOSE: To improve heat exchanger efficiency as well as to aim at miniaturization in a heat regenerator, by charging a heat exchanger device, having a regenerative part made up of sintering a metallic fiber, to the inside of a cylindrical outer casing, and forming a heat insulating void between this heat exchanger device and an inner circumferential surface of the outer casing.

CONSTITUTION: In case of a heat regenerator 1 being additionally installed in a displacer 2 of a Stirling engine and doing heat exchange with a heating medium passing through this displacer 2, heat exchanger devices 9 (9A, 9B...), having holding parts 7 (7A, 7B...) fitted in an inner circumferential surface of an outer casing 3 around regenerative parts 5 (5A, 5B...) made up of sintering a metallic fiber, is charged to the inside of the outer casing 3. And, an airtight void 11 is partitively formed between the circumference of the holding part 7 and the inner circumferential surface of the outer casing 3. The holding part 7 is formed into a ringlike body, and the inner surface is closely attached and locked to a peripheral surface 35 of the regenerative part 5 by means of diffused junction or the like. In addition, as for the heat exchange device 9, the plural pieces are stacked in the axial direction and housed, and each space 49 to be interposed in a passage A, is formed between these adjacent regenerative parts 5 and 5.

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